LEAGLE, John

Notes on Pharmacy in the Olden Time, Collected And Illustrated, by JOHN EAGLE. Chymist.,

Published and Sold, by the Author, at his Shop in the Middle Road, Roxeth.

Harrow on the Hill.

1885.

B92/.c

£40

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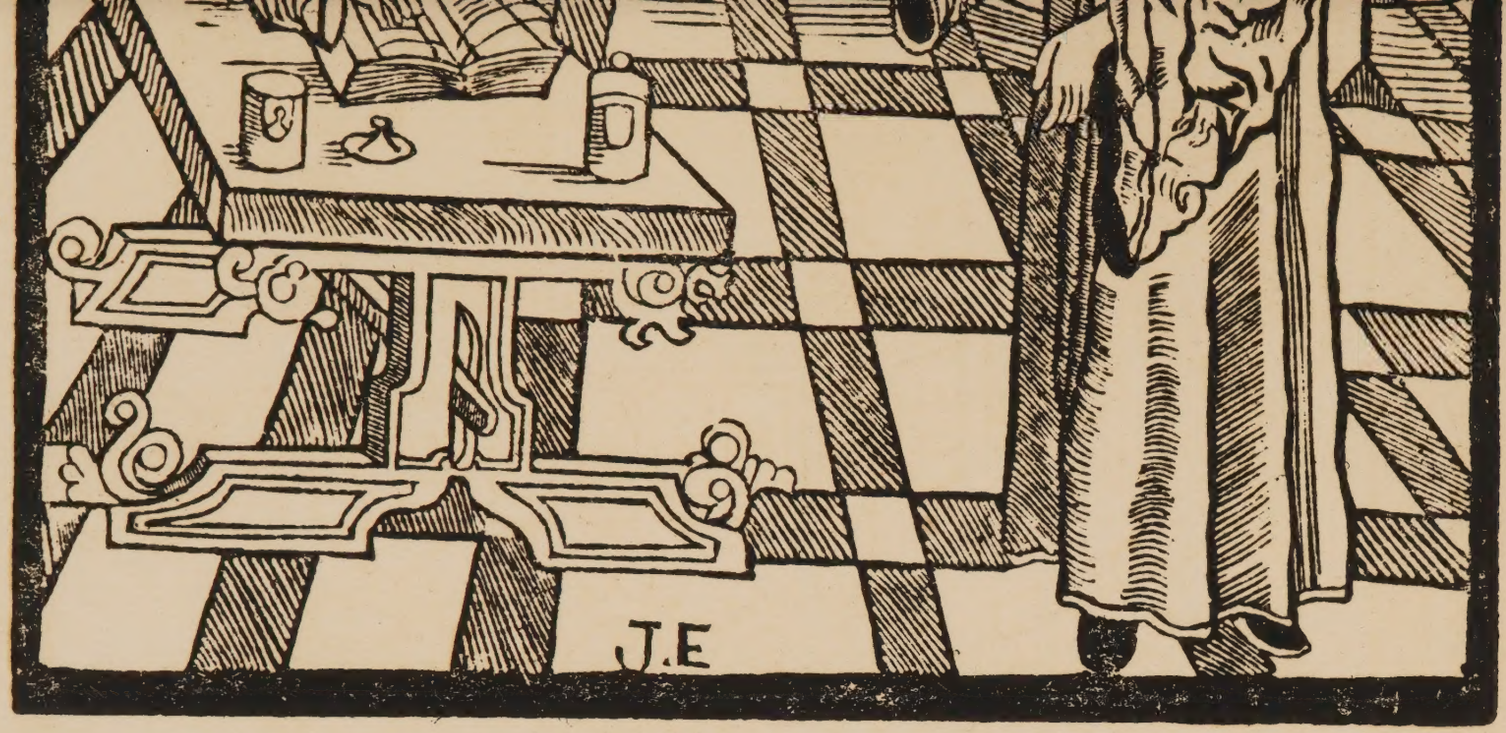

Interior of an Apothecary's Shop, A. D. 1498.

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Woodcuts

One folding view of an apothecary's shop, one cut on wrapper, the same coloured on title page, and nineteen in the text.

TO THE READER,

The following notes were originally jotted down without any thought of exposing them to a wider range of criticism than that of my own small circle. The subject, however, is an interesting one and it is possible, notwithstanding their fragmentary character that these few comments may be acceptable to others,

With regard to the woodcuts, some were copied from various editions of the "Ortus Sanitatis", others from "A Booke of Distillation". London. 1565. and Dr. J. French's "Art of Distillation". London. 1653.

It was my intention to add several other fac similes likely to interest the reader but as their execution demanded trained skill which could not be employed without adding to the price of the book I gave up the idea.

THE MEDICAL PROFESSION.

Medical knowledge in those days was not very extensive, and what did exist was hopelessly entangled in the darkest and filthiest superstition. Not only was the influence of the Planets over disease firmly believed in by the most enlightened Physicians, but many other equally whimsical ideas possessed the minds of Doctors of Medicine. Filth of all kinds or sorts was eagerly sought after, and no domestic animal was exempt from contributing its share of excrement to the Materia Medica of the current Pharmacopœias. And as long as there were only herbs and excrements within their reach the Physicians of old got along very well, for, I should think the chief difficulty they had to contend with was, inducing their patients to swallow such revolting doses. But the introduction of Chemical remedies and more particularly Antimonial

Compounds by Basil Valentine in the 15th century brought about a radical change in medical practice, the results of which were the reverse of satisfactory to the public who suffered from it both in body and purse. Marvellous effects were expected from Antimony, and the results of the earlier trials can easily be guessed by experienced Pharmacists. Practitioners accustomed to order in a prescription so many ounces of this herb or so many drachms of that excrement, were very likely in their first essays with powerful chemicals to overdose their too confiding patients, and that was what really did take place. Numbers of people succumbed to the enormous doses prescribed by the Faculty. The learned guardians of the public health were aghast at the potency of the new remedies, and alarmed at the rapidity with which their cases slipped from them. A Physician one day would be called to see a patient for the first time, and might order doses of two or three drachms of Precipitatum Rubrum or some equally excessive dose of Antimonium, and, the next day would repeat his visit, to find his patient gone and his services no longer required.

It was not long before Antimony, which had been used more freely than any other of the new remedies became generally regarded by the Profession as a very deadly agent, and Basil Valentine met with the reward which too often is all an innovator reaps: he and all his school were strongly denounced. This valient champion of chemical remedies, however, was not less

able in the handling of his pen than in the manipulation of his chymical apparatus. Upon him, and all that belonged to him, the physicians drained their vials of wrath; he in his turn made some very palpable hits, and many passages in the English translation of his "Triumphant Chariot of Antimony" are so pertinent that I think they are worthy of reproduction so I will give a specimen or two:-

...Every Physician ought above all things to take care,
...that he do neither less nor more than procure the
...restitution of health lost, not instituting his curation
...contrary to nature or deviating from her direct in-
...tention. When Spirit of Wine is poured upon Aqua
...Fortis a vehement ebullition is made and these two
...natures will not easily permit themselves to be to-
...gether. *** After the same manner Oyl of Tartar
...and vinegar made of rich wine, act each upon other
...for they hate and fly from each other as fire and
...water, although they proceeded from one and the
...same matter. Therefore the Physician ought in a
...special manner to be mindful to understand all cir-
...cumstances from the sick very exactly, and consider
...the same being understood that in curing he may
...use such means as are fit to remove the disease, lest
...the patient be injured by the medicine, as for ex-
...ample when Iron is dissolved in Aqua Fortis, if you
...suddenly pour Oyl of Tartar upon that solution you
...shall difficultly preserve the glass from breaking;
...for the contrary natures like unto gun-powder, take

...fire and break the glass, of all these things our gown
...doctors know nothing.
... Therefore let the World know that I shall prove
...those pretended Doctors, who seem to be wise to be
...mere fools and idiots. So I hope, yea doubt not
...(although all vagabond and circumferaneous Medi-
...castors, all Physicians resident in Cities, and how
...many soever there be, that profess themselves Mast-
...ers of any part of medicine, do all together contrive
...what they can and exclaim against Antimony.) but
...that the same Antimony will triumph over the in-
...gratitude of all those unskilful men (for true phys-
...icians and such as are always ready to learn I touch
...not here).
...And whensoever I shall have occasion to contest in
...the school with such a Doctor, who knows not how
...himself to prepare his own medicines, but commits
...that business to another, I am sure I shall obtain
...the palm, for indeed that good man knows not what
...medicines he prescribes to the sick; whether the col-
...our of them be white, black, grey, or blue, he can-
...not tell.
...Good God, to what a state is the matter brought!
...what goodness of mind is in these men! what care
...do they take of the sick! Wo, Wo to them! in the
...day of judgment they will find the fruit of their
...ignorance and rashness; then they will see him whom

...they pierced, when they neglected their neighbours, ...sought after money and nothing else; whereas were ...they cordial in their profession, they would spend ...nights and days in labour, that they might become ...more learned in their Art,&c.

In the end medical ignorance prevailed, and in one country at least, the use of antimony was prohibited. During the early years of the London College of Physicians, the jealousy of its members was roused by the conduct of the Surgeons, who occasionally ventured to prescribe internal remedies, and in the reign of Elisabeth Commissioners were appointed to consider the rival claims and settle the dispute. The eminent Dr. Caius, then President, was advocate for the Physicians and by his learned pleading he succeeded in obtaining a decision adverse to the Surgeons, who were prohibited from ordering internal remedies in such diseases as Sciatica, or in wounds. Whether Shakespere ever took any kind of interest in medical matters I don't know but judging from his portrait of this learned Doctor as given in the comedy of 'The Merry Wives of Windsor' I am inclined to think he did not entertain a very flattering opinion of the worthy Doctor's abilities.

However, having gained this important advantage, these militant practitioners of the healing art next turned their arms against the Apothecaries, whom they had for some time regarded as mere interlopers with no sort of legal right to exist at all, and whose growing

influence they viewed with real alarm. Against these more humble yet not less useful servants of the Public a constant warfare was maintained for many years, charges of all kinds being brought against them, some of the most frivolous and ridiculous character possible. But in the year 1664 a lull in the conflict was brought about in a very remarkable way, which though not of long duration ultimately proved a great help to the Apothecaries. It was the outbreak of the Plague that found the Faculty provided with no better remedies than Mummy and Excrement, and as the Pestilence was not to be exorcised by such means the mortality rapidily increased, and many Physicians fled into the country. The Apothecaries bravely stood their ground, and by visiting the sick and doing their best to help them in their misery, gained greatly in the esteem and confidence of the Public.

Among the many party publications that issued from the press about this period, there was one from the pen of Dr. Christopher Merret entitled 'A Short View of the Frauds and Abuses committed by the Apothecaries in relation to Patients and Physicians' which gives a very full account of their delinquencies. Although written more than two hundred years ago, we find in it the same sort of ideas, the same prejudices, and the identical arguments and audacities that are to be met with in the medical journals of the present day.

One of the most serious charges he makes against them is that when fox lungs are ordered in a prescription,

they substitute sheeps lungs, and for the bone of a Stag's heart they use the bone of an Ox heart.

As all the efforts hitherto made to injure the Apothecaries seemed to produce no substantial results a new method was suggested by a few of the more enterprising members of the College who conceived the idea of establishing a Dispensary for supplying the public with medicines at cost price and Advice Gratis. Subscribing 10 pounds each about 50 of them soon put the design into execution, and a room at the College was appropriated for the purpose, and afterwards as the business increased branches were opened in St. Martin's Lane, Westminster. and St. Peter's Alley, Cornhill.

Whatever the effects this scheme may have produced upon the trade of the Apothecaries, it is pretty clear that it was attended with some disadvantages to the Physicians themselves many of whom had strongly opposed it from the first. Two of the most noteworthy party works published in connection with this matter were both by subscribers to the Dispensary, one being a Poem the 'The Dispensary' by Dr. S. Garth. and the other by Dr. R. Pitt. Fellow and Censor of the College, styled "The Craft and Frauds of Physic exposd." both books were received favourably by the Public but as the latter one deals with the subject from an entirely practical point of view, I shall give a couple of extracts from that one only. :—

... The Crimes, says Dr. Pitt, of our Profession, have

...been often expos'd and the Artifices and Fourber-
...ries of the English Practice are derided and condem-
...ned by many late Writers. The Roman Senators,
...who were Physicians to their Friends and Families,
...expell'd and banish'd the Greek Practicers out of
...Rome and Italy. Pliny has recorded their Manners
...of Practice, detested by Cato, and after him by the
...Roman Nobility. They were almost the same with
...ours, which may be suppos'd to be copied from them,
...or invented since, and brought again into use by men
...of the same Genius.

... * * Bezoar-Stone will be the most understood and
...obvious Instance in our English Practice; from
...whence you may, as well as the Physicians abroad
...have done, inform yourself, with what skill and
...Art, and Integrity our Profession continues to be
...practis'd here. Bezoar has held its Name and Repu-
...tation almost Sacred with us, tho' exploded long
...since in almost all the Parts of Europe.

...**The Physicians have not only impos'd their Be-
...zoar and Pearl, and the very common, absurdly calld
...precious Stones; but the ardent desire of gain, by im-
...posing on the Credulous, or the cold inadvertency
...of that sort, who never fail to comply with the
...opinion of all others, have brought into the Cata-
...logue of Simples, and thrust into the Stomachs of
...their Patients, not only the most loathsome but the
...Parts of Animals, which after their Death, are void
...of all the Spirits or Oyls, and are a dry and un-

...active earth. I said I would give a couple of extracts but I have already inserted three and I find yet another. It is a bit of advice from Dr. Pitt. :—
... The Patient will see that his Physician continues ...sober thro' the Day, and is not heating himself or ...his Friends over the Bottles, into extravagant and ...foolish Characters of his wondrous Abilities above ...all the rest of the Faculty. The Physician will be ...present, as often as the dangerous uneasinesses de-...mand his Visits, and not send his Prescription from ...the Tavern. * * * This seems necessary to be exact-...ed at this time by the Government, and by all the ...Families, (who can penetrate into the common Prac-...tice) from the Faculty, which has almost forfeited ...their Protection and Regard; having amused the ...People with Medicins they despise in their private ...Conversations, and having injur'd and defrauded ...their Patients, by refusing to appoint the Remedies ...of the late Inventions or Improvements.

The book these passages were taken from was published in the year 1703 and it shows beyond doubt that Dr. Pitt's ideas were far in advance of his professional time. For, although nearly two centuries have elapsed since he wrote, we have only to turn to the pages of the British Pharmacopœia to find unquestionable evidence that the Faculty still believes in the remedial efficacy of filthy garbage. However, it is satisfactory to know that British Pharmacists have always discountenanced such disgusting superstition.

Moliere, in his comedy of 'Le Malade Imaginaire', has also given us a very good idea of what medical practice was in his day,

Clysterium donare,
Postea seignare,
Ensuita purgare,
Reseignare, repurgare, et reclysterisare.

and he might, justly, have added Excrementa administrare.

With regard to Surgical Practice, during my short search I did not meet with any particulars likely to be of interest to Pharmacists. It may, however, be worth while to mention that Lotio Flava, (Hyd. Perchlor. cum Liq. Calcis.) and Lotio. Alba. (Liq. Calcis.) were both being used in the Paris Hospitals in the early part of the seventeenth century, whilst Lint and evaporating lotions of spirit of wine and water were in use at a much earlier period.

Here is a characteristic specimen of Medico Chirurgical Poetry, by a less famous author than Rabelais, entitled—

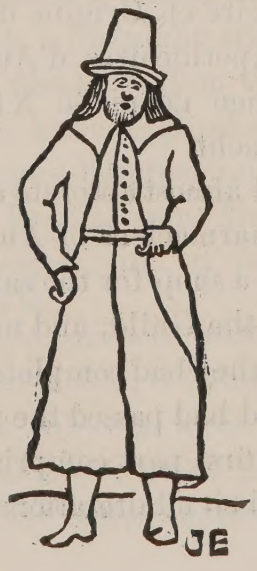
A Surgeon diuided into foure partes: or The Surgeon's Comment.

1 A Surgeon's like a God whom they adore:
When death about the sicke mans bed doth sore,
Then hath he great respect, and high regard,
Fed with the smoaky promise of reward.

2 But as the Patient doth begin to mend,
So doth the Surgeons God-head straightwayes end:
Yet such attendance on him still is given,
As if he were an Angel comne from Heaven.

3 When health and strength the Patients doth inspire,
To sleepe, eate, walke, and sit up by the fire:
Then strait the Surgeons state Angelicall,
In their respect unto a man doth fall.

4 Last, when the sicke or sore are heal'd againe,
And that the Surgeon seekes reward for's paine:
Hee's neither counted God, nor Angel then,
Nor is he intertained as a man.
But (through ingratitude) that hellish euil.
They bid the Surgeon welcome as the deuil.



A Physician of the Galenical school. (17th century.)

THE APOTHECARIES.

Concerning the legal qualification of an English Apothecary in former times, I have no information at my command. But in the course of casual half hours with books I came across a few particulars relating to the continental practitioner that may be of some interest to the reader. They are taken from the rather scarce "Histoire et Origine de la Corporation des Chirurgiens & Apothicaires d'Audenarde dite des SS. Cosmes et Damien depuis le XIIe siecle. par L. Creteur. et Th. Devacht.

This Guild exercised almost absolute authority in matters affecting the Pharmaciens of Audenarde. No one was allowed to keep a shop for the sale of drugs unless he were a Master of the Guild, and none were eligible for that degree until they had completed an apprenticeship of five years, and had passed the prescribed examination. Of this the first part comprised the recognition of simple drugs, their adulterations and preparation

and the translation of prescriptions. The second part, entirely practical, was devoted to the preparation of various official compounds. These were the rules but it appears the apprenticeship was not always insisted upon as, for instance, in 1677 Pierre Vlamynck was excused this requirement. In the practical portion of his examination he had to prepare Emplastrum Oxycroceum; Electuarium benedictum Laxativum; and Unguentum Apostolorum.

Laurent Baes in 1696 was not so fortunate, his application to be examined being dismissed because he was a Frenchman and there were already too many Pharmaciens in Audenarde.

In 1751 F. Duquesne had to prepare Calomel (seven times sublimed), Sirop d' Artemisia, l' Emplastrum de Ranis cum Mercurio. and Confectio Hamech.

In 1795 N. Cuvenaille passed his oral examination on the 13th of Oct, a fortnight afterwards he proved his knowledge of plants, and on the 5th of Nov. was examined as to his knowledge of simple drugs, after which he had to make Electuarium lenitivum, Syr. de Cich. cum Rheo. Emplastrum Mercuriale. and Mercurius dulcis (Calomel), and at last received his diploma Nov. the 12th.

In this case the examiners were very accommodating towards the candidate, it being at his own request that the different subjects were taken on different days with a convenient interval between each, an example, I think, not often imitated in this country.

Scattered through the 152 pages of this history are many other curious items which render the book valuable to all who interest themselves in such lore.

With respect to lady apothecaries, J. Beckmann in his "History of Inventions and Discoveries" states that as far back as the year 1445, an apothecary's shop in the city of Augsburg, maintained at the public expence, was managed by a female, and in the same work may be found a notice of a London apothecary Coursus de Gangeland who in 1345 received from king Edward III. a pension of sixpence a day.

THE MATERIA MEDICA.

A well stocked Apothecary's shop of the seventeenth century must have been a veritable museum of unsavoury curiosities, in which might have been found on one and the same shelf, such strange drugs as Toads, Ants, Spiders, Millepedes, Mummy, Moss off a dead man's skull, Bone of a Stag's heart, Stercus humani, Dung from a stone horse, Lungs of a fox, Cat's dung, Worms, Album Græcum or white Dog's dung, Brains of sparrows, Titmice, Peacocks dung and feathers.

Some medical writers when dealing with this subject, have treated it in such a manner as to lead the reader to suppose that this class of remedy was in use only during the dark ages, but there exists plenty of evidence to show that down to a comparatively late period, the highest medical authorities were in the habit of prescribing a variety of disgustin refuse which the Law compelled the apothecaries to dispense.

My notes, however, will refer to only a few of the more important or remarkable items. The first one being Oil of Vitriol or Sulphuric Acid, which from

the earliest times of Chemical Science has always been regarded as a most important reagent, and few of the early printed books on that subject omit giving careful directions for its preparation. The process illustrated here may be found detailed in Gesner's "Newe Jewell of Health' as translated into English by G. Baker. in 1576.

Ye Preparation of Eyl of Vitriol,

12 pounds of Roman Vitriol (cupri. sulph.) were calcined to 6 pounds, and the residue put into a glass retort to which was adapted a receiver containing 18 ounces of water. A strong heat was then applied for a couple or more days until the fumes ceased to pass, the contents of the receiver were now removed and the 18 ounces of water separated by redistillation. The red colour of the oil obtained by this method, rendered a

third distillation necessary before it was fit for use. The process of making Oil of Vitriol from Sulphur was unknown till the year 1697.

I believe Albucasis, an arabian writer who lived in the 12th or 13th century, was the first to give the mode of preparing Rose Water, although this liquid is mentioned by Mesue another arabian author writing three centuries earlier.

The woodcut above represents the apparatus made use of in the process described by Albucasis and is copied from the original in P. Morwyng's translation of the "Thesaurus Euonymi Philiatri" by Gesner, wherein are full details of the various methods formerly in use which Albucasis thus sums up.—

Of the four wayes which be, Without water with flaming wood, Without water with coals, With water and flaming wood, With water and fire of coals, the first is

the worst, and yieldeth a water of the least smell; the second is better than it, the third than the second; but the fourth is best of all. The second and third are most used and I will here describe the third (which is made with water and flaming wood, as it is in use with the kings of Aharach, &c, &c.

With regard to the woodcut, A is the furnace with a smoke hole in each side and a cover on which stand two brasen vessels B & D containing water, and connected together by a pipe furnished with a stopcock, In the cover of the vessel B are three apertures in which three alembics containing the roses are placed and to these were adapted vials for receivers.

Lapis Bufonites, Toadstone. Of this there were two sorts, the long and the round, the former were about an inch in length and four or five lines thick, hollow on one side and convex on the other, smooth, and of a grey colour with reddish spots. The round were bonnet shaped about half an inch across at the bottom and of a grey or greyish blue and sometimes reddish colour.

It was believed by some that these stones were formed in the heads of old toads, and by placing the reptile on a piece of red cloth it voided the stone by its mouth.

In doses of a scruple or half a drachm their powder was prescribed in Diarrhœa, the Plague, and several other diseases.

Ye getting of ye Toadstone.

El Dragon.

Sanguis Draconis. Dragon's Blood. Respecting the origin of this name several explanations have been offered, the earliest I know of occurring in the 'Ortus Sanitatis" in these words: Sanguis draconis quo physici utuntur in medicinis aiunt gummi cuiusdam Arboris sic dictum propter sanguinis similitudinem veri draconis. Bearing in mind the popular belief as to the existence of these monsters, it is probable that this statement represented the views of most physicians for a long time, until Dr. N. Monardes published the early parts of his 'Historia Medicinal' wherein he offered a scarcely more credible account. He asserts that on removing the skin from the fruit of the tree yielding this resin, there appears beneath the perfect figure of a dragon, with a long tail, a bristly back, and all the other external peculiarities usually ascribed to these fabulous brutes by artists. The dragon above is a fac

simile of the one in the second part of the "Historia Medicinal". Dragon's Blood was used as an astringent, and Drs. Salmon and Schroder, with other equally eminent authorities, declare that when laid upon the navel it stops dysenteries. In the Pharmacopœia Londinensis (2nd edition) it was one of the 25 ingredients in Trochisci Gordonii. and with mummy and some 29 others it was contained in the Emp. ad herniam. of the same dispensatory.

Draconites. These stones were another of the very numerous class of antidotes to poison and were said to be extracted from the heads of dragons. As dragons were insensible to the magic influence of red cloth, and could not be induced by any other means to part with their stones, it became necessary to use force, and this, conscientious and muscular physicians, desirous of giving their patients the benefit of the genuine drug, would not hesitate to employ, as the learned author of the " Ortus Sanitatis " shows in the sketch which I reproduce on page 22.

The next item is Terra Sigillata or sealed earth, for many ages a common ingredient in prescriptions and often mentioned in the Pharmacopœias of the 16th and 17th centuries. Of the several kinds, that which was brought from Constantinople was considered to be the best. The chief varieties were Terra Lemnia from Lemnos. Terra Samia from Samos. (Terra Samia Vulgaris was common pipe clay made into cakes and stamp -ed) and Terra Melia from Melos, also called the sealed

Ye slaying of ye terrible dragon.

earth of Saint Paul. All these were reputed antidotes to poison and likewise of sovereign value in Fevers, Diarrhœa, Dysentery, and the Plague. The preparations in frequent use were Troches, an Oil, a Magistery Simple and Compound Spirit.

Another instance of the superstition of, and the tenacity with which it clings to, the medical profession, is afforded by the history of the common viper. For the last eighteen hundred years the followers of Hippocrates have regarded this odious reptile with especial interest and ascribed to it marvellous medicinal properties the more important being thus described by a high authority. — The Flesh, Liver and Bones have no poison in them. The only poisonous parts being the head and gall. The head is used as an Amulet against Quinsy, Viper broth cures the French pox and Leprosy, eating half a viper at once and fasting 5 or 6 hours after, performs the same things. The fat in doses of 1 to 6 drops is reckoned sudorific and anodyne whether used internally or externally. The whole viper (head and gall excepted) in powder cures perfectly the Gout and King's evil taken twice a day to two drachms or more. The biting of the viper is mortal, and kills within three days at farthest, if not speedily cured; the poison is universal, as if the body was set on fire, with convulsions, weakness, cold sweats vomiting and death; at first the poison may be sucked out by applying the anus of a hen to the part after scarification, or else a plaster of garlick, onions and

Venice turpentine, etc. The ordinary preparations comprised Troches, Essence, Volatile Salt, Spirit, Compound Powder, Oil, and Broth.

The preparation of Terra Sigillata.

The preparation of Trochisci de viperis.

Making Tutty.

TUTTY. Tuthia. This when carefully washed formed the principle ingredient in many eye lotions and ointments. It also entered into the composition of several preparations of the Augustan and other early Pharmacopœias, and is supposed to be what was known to the ancient greeks as Spodium.

Catus, Felis. This familiar animal like all other domestic creatures had to contribute its share to the Materia Medica of the London Pharmacopœia, and from Dr. William Salmon's translation I take this brief extract describing the chief of its medicinal properties. :— The grease of a gelded cat softens hardened nerves and is anodyne. The head of a cat burnt to ashes and these blown into the eyes thrice a day are a remedy for all diseases of the eyes. The College of Physicians order the head to be that of a black cat but Dr. Salmon supposes one of another colour would do as well. The liver burnt to ashes and drunk helps the Stone, the dung mixed with mustard and vinegar cures the Gout and falling off of the hair. (here is a specimen of the prescriptions, powdered cat's dung 1 ounce, powdered mustard seed 3 drachms, onion juice 2 drachms, bear's grease enough to make an ointment.) Dr. Schroder in his Pharmacopœia Medico-physica, states that 3 or 4 drops of blood taken from the vein under the tail of a tom cat drank in water or wine cures Epilepsy.

Oleum Sulphuris per campanam, I believe Gabriel Fallopius of Modena was the first writer who described this process, which I take, with the woodcut on the next page, from 'The Art of Distillation' by Dr. J. French. A large iron vessel filled with burning sulphur was placed under a capacious glass bell suspended from the ceiling, the fumes condensed in the latter and flowed through the tube at the side into the receiver below.

The way of making Oyl of Sulphur.

Mummy. Of this remarkable drug Dr. Schroder says there were five sorts met with in commerce, : —

1st. The Arabian, which was a liquor exuding from bodies embalmed with aloes, myrrh and other aromatic gums, this was the most valued.

2nd. The Egyptian, a liquor sweating from bodies preserved in asphaltum.

3rd. The bodies of Eastern wayfarers and travellers dying on the road, and buried in the sand.

4th. The factitious which was merely a mixture of asphaltum and bitumen.

To these the scientific ingenuity of the Faculty added the fifth sort, which was known as Artificial or modern Mummy.

Few people will doubt that the physicians have a great deal to answer for, and, at their present rate of progress, ages must elapse before they can adequately atone for the pranks and excentricities of the past. One might have thought that when men of education took to seeking remedial agents in common privies, filthy superstition had reached the lowest step of developement, but it was not so, for the perverse ingenuity of the Faculty discovered yet another means of imposing on the credulity of the Public, and having tired of the water closet they next broke in upon the sanctuary of the sepulchre, and the earthly remains of the highest and noblest celebrities of the ancient world were ruthlessly torn from their tombs to furnish medicine for the use of their more civilised and christian

descendents. What an end to the history of a Pharaoh! To be carefully embalmed with the choicest and costliest preservatives by artists of the greatest skill, then with all the pomp of State pageantry to be deposited in a Royal mausoleum, there to rest unthought of for centuries, but at last to be taken out, cut up, prescribed as physic by physicians, and sold by the apothecaries at two shillings the drachm. It seems as if physicians were allowed too much license, and too much respect was paid to their example, certainly in this instance for the strong belief that every orthodox physician had in the prophylactic and curative efficacy of preserved dead bodies doubtless originated the custom of all Royal personages, and others who could afford it, wearing a piece of mummy next to the heart as a preservative against poison and infection.

Not the least interesting among the curiosities of the old Materia Medica is the root of Atropa Mandragora which most authorities consider to be the plant mentioned in the book of Genesis. Chapt. 30. verse. 14 though Lemery says the mandrake of the ancients was quite a different plant. Nevertheless it is certain that for many centuries mandrake root was believed to be a cure for barrenness, and this belief was shared in both by the Faculty as well as the Public. Many important preparations described in early pharmacopœias contain mandrake root and in the earliest printed Herbals the male and female plants were shown thus,

Atropa Mandragora.(Fœmina)

The common fancy that their roots possessed some resemblance to the human form could not have been more extravagantly expressed than it is in these two sketches, both of which were copied from the originals in the 'Ortus Sanitatis'.

Anthropomorpna. or
Atropa Mandragora.[Mas]

Lapis Vesice et Lapis Molaris.

Lapis Vesice. Stone out of a man's bladder. This was considered a specific for Gravel and Stone in the Bladder when given in doses of about one drachm. There were also several preparations of it in frequent use, the more important being Sal Calculi Crystalinum, Oleum Calculi per deliquium. Elixir Calculi Humani.

Powdered millstone mixed with rosin and applied to the breasts was recommended for stopping the secretion of milk.

Castoreum. Few drugs now in use have a longer history than this nauseous substance, for ever since the time of Hippocrates it has been regarded by medical authorities as a valuable remedy, and one that could be relied upon in many diseases. Yet at times there have been individual practitioners who not only despised its vaunted power, but justly considered the official recognition of this class of remedy a reproach to the Profession. It is therefore satisfactory to find in the latest edition of the British Pharmacopœia issued a few weeks ago, evidence that the General Medical Council are making some sort of attempt to keep pace with modern requirements, and as one small result the 'dried preputial follicles and their secretion' are at last consigned to the limbo of the past.

Lapis Armenus, Melochites. A native carbonate of Copper of a pale blue colour and softer than lapis lazuli with which it has been sometimes confounded, like Tutty it was used chiefly in Opthalmic practice though occasionally prescribed internally in mental affections.

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SPECIMENS OF PRESCRIPTIONS

written by a Court Physician in the eighteenth century,

Haustus Ecphracticus.

℞

Millepedas contusas. No xxx.
Vini. Aperitivi uncias tres,
m. f. haustus bis in die sumendus.

Electuarium Bechicum.

℞

Conserv. Rosar. rubrar. uncias. tres,
Ol. Sulphuris per Campanam q. s. ad
gratam aciditatam, m. f. Electuarium.

℞

Terr. Sigill. scrupulos duos.
Troch. Viperin. drachmam dimidiam.
Acetic. Bezoartic.
Aq. Theriacal. ana unciam,
m. f. haustus.

For dispersing a Quinsy.

℞

Alb. Græc. cum Ciner Nid. Hirund.
a. q. s. m. cum melle f. Cataplasma.

In a Giddiness.

℞

Stercus Pavon. uncias duas.
Vin. Alb. libras duas.
infundantur.

In Convulsions.

℞

Cranii. Human. p. p.
Ung. Alc.
Corall. Rub.
Cinnab. Antim.
Diaphoret. Martial. a. drach. dimid.
Croci. gr. xv.
Camph. gr, iij,
Opii, gr, iv, m, f. pulv,

In Synovia,

℞

Lacc, r,
Usneæ Cranii Human, a, drachmam.
m.

THE RETAIL TRADE.

The commercial position of the Apothecary was probably a much more satisfactory one than that of the Pharmacist of the present day, for the only serious competition he had to contend with was from the Booksellers retailing chymical remedies and the keepers of Ale houses who supplied the public with purging drinks.

Concerning the retail prices of drugs, the earliest information I have met with is contained in the 'Taxa' issued with the seventh edition of the Pharmacopœia Augustana in 1622, wherin are mentioned several hundred drugs and compounds of all sorts and descriptions from Senna leaves to Cranium homini suspensi. I do not, however, intend to notice these but to pass at once to the oldest British price list I know of, 'The Pharm-aco Pinax, or a Table and Taxe of the pryces of all usuall medicaments, Simple and Composed, contayned in D. Gordon's Apothecarie and Chymical Shop within Mr. Farquar's high lodging in New Aberdene.' Aberdene. Imprinted by Edward Raban, anno 1625.

The prices charged by the apothecaries in a city so far north as Aberdeen we might naturally expect to be somewhat higher than those demanded in places like London or other southern cities, but it seems to me that for many of his drugs Mr. Gordon's charges were excessively high, even at that period. In the preface he offers some explanation upon this subject, and I think it may be safely inferred that the prices ruling in Aberdeen were below those in this catalogue,

Prices per ounce :— Human fat 12/-, Axungia 1/-, Goose grease 1/-, White wax 4/-, Yellow wax 2/-, Starch [amidi officinarum] 1/-, Common Armenian Bole 2/-, Colophony 2/-, Ichthyocolla 1/-, Liquorice juice 8/-, Calabrian Manna 12/-, Tobacco confected with oil of anise 16/-, Valerian root 3/-, Sal Ammoniac Sal Gemmæ, Sal Petre, Spermaceti, Confect. Rosæ and Aqua Fortis, each 6/-, Sarsaparilla 10/-, Refined Sugar, Sulphur vivum, and Linseed oil each 2/-, Oil of sweet almonds, Sugar of Lead, Mercurial Ointment (pro morbo gallico), each 8/-, White Soap, Lead Ointment, Marshmallow Ointment, and Ginger Root, each 3/-, Acetum Scillæ, Itch Ointment, Diachylon Plaster, and Oil of Juniper, each 4/-, Spiritus Vini or Aqua Vitæ, Senna Wine, Sulph Citrin, and Kitchen Sugar, 1/-, Egyptian Mummy 2/- per drachm, Chamomile Flowers 1/- the half handful.

The above few items are I think sufficient to enable the reader to form an idea of D. Gordon's general rate of charges which are very fully stated in the thirty

forty pages of his interesting catalogue.

The next list is a London one published in 1681 by D. W. Salmon from his house the 'Red Balls' in Salis-bury Court, Fleet Street. It occupies about eight pages following the Postcript in his Synopsis Medicinæ and gives the prices of nearly two hundred and fifty preparations from which I select these few :- (per ounce) Sal Prunella, Cinnamon water, each 4d. Cream of Tartar, 3d. Spirit of Niter, Spirit of Turpentine, and Spirit of Vitriol, 6d. Tincture of Benjamin, Tincture of Saffron, and Queen of Hungary's water, 8d. Spirit of Common Salt, Oil of Vitriol, Oil of Tartar per deliquium, 9d. Spirit of Lavender, Elixir of Vitriol, Salt of Wormweod, Salt of Tartar, Tincture of Colocynth, Tincture of Castor, each 1/-. Spirit of Hartshorn, Oil of Aniseed, Tincture of Cinnamon, Sugar of Lead, Salt of Steel, Mercurious Dulcis, [calomel] each 1/6. Oil of Amber 2/-. Oil of Caraway, Sal Ammoniac, 2/6. Extract of Gentian, Balsam of Sulphur, 3/-. White Precipitate, Oil of Juniper-berries, 3/6. Oil of Rosemary, Resin of Scammony, Mercurious Vitæ or Powder of Algaroth, 4/-. Cinnabar of Antimony, Family Pills, 5/-. Resin of Jalap 6/-. Oil of Cloves 7/6. Oil of Mace and Oil of Savin 8/-. Turpethum Minerale verum, and Quintessence of Human Skulls, 10/-. Flowers of Sulphur 2d. It would seem from this advertisement that Dr. Salmon carried on the business of an Apothecary and at the same time practised his profession as

Doctor of Medicine, He certainly must have been more industrious than most of his contemporaries, for several of his works formed bulky volumes and went through not a few editions.

Dr. R. Pitt in his "Craft and Frauds of Physic expos'd" deals specially with the retail cost of drugs, and gives a long list of the prices that were current at the time he wrote. As in previous instances I shall content myself with a selection of the more noteworthy, among which occurs Rhubarb root at seventy shillings the pound. Prices per drachm, Saffron and Cochineal 6d, Gamboge, Balsam Copaibæ, Jalap, Japan Earth 1d. Oils of Aniseed, Caraway, and Juniper 3d. Oil of cloves 8d. Oils of rue, chamomile, and lavender 1/-. Elaterium 8/-. Pil cochiæ, Ruffus pills, Stomach pills, Rudius pills 4d. Purified scammony 4d.

Per ounce, Gum benzoin, Camphor, and Manna 8d (the common dose is double that quantity, and is the dearest medicin us'd in Physic). Mechoacan 4d. Senna 6d. Venice turpentine 2d. Cantharides 1/-. Tincture of Saffron and Syrup of rhubarb 6d. [when the price is dear] Syrup of buckthorn 2d, of violets 3d. of roses 3d. Oxymel of squills and Lenitive electuary 3d. ordinary Plasters 2d, Blistering plaster 3d. Oxycroceum plaster 8d. Tincture of castor 1/-. Steel wine 3/- the pint.

As to the charges for dispensing prescriptions the only information I have met with is what Messrs.

Creteur and Devacht give in a copy of an Apothecary's bill for medicines supplied to the burgomaster of Audenarde in the year 1700.

Dr. Pitt referring to the Dispensaries established by the College of Physicians for the sale of drugs and dispensing of prescriptions at cost price, says that on an average about twenty thousand prescriptions were made up at the three establisnments during the year, the cost of each dose being about one penny.

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OFFICIAL REGULATIONS.

As early as the beginning of the sixteenth century laws were in force in Germany and other continental states restricting the sale of drugs to the apothecaries, and empowering the medical authorities to inspect all apothecaries' shops, examine the drugs, destroy those that were stale or damaged, and fine the proprietors. The prices of medicines were likewise regulated by the authorities, and apothecaries were not allowed to sell to persons unknown to them, poisons or powerful drugs. As regards the inspection of their shops similar power was, at a later period, exercised by the London College of Physicians, and the way in which they did exercise it, is shown by the case of Mr. Goodwin an apothecary carrying on business at Charing Cross in 1727. Dr. Shadwell having bought some small articles from him, which were booked, the collecting clerk, at Christmas, inserted the amount in his list, and called several times on the Doctor for the money, which was only a few shillings; vexed at the trouble given him for such a trifle, the collecting clerk got

into a passion, and the Doctor threatened vengeance.

Upon which, on the 10th of June, 1727, the visitors came to Goodwin's house, Charing Cross, during his absence on Change, and burnt many of his articles in the street: told a person who came to buy some oleum anisi, that it was not good, nor anything in the shop; and carried off, to justify their proceedings, some emplastrum meliloti, which had been two or three years in Africa, and had come back in a chest brought to be refitted. They then went to another shop of his in Charles Street, Westminster, and condemned the goods there, taking away a chest of articles to be examined. Mr. Goodwin did not sit down quietly over this injurious treatment, but appealed to the law, and recovered, I believe, £600. damages.

The above statement is reproduced from the preface to the 3rd edition of Gray's Supplement to the Pharmacopœia.

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THE APOTHECARY'S SHOP.

The disgusting nature of many of the articles kept in stock and constantly in process of manipulation, must have given to the apothecary's shop of olden time an odour scarcely so tolerable as that encountered in the pharmacies of the present day. The general appearance also was rather different, for, down to the seventeenth century a shop counter appears to have been unknown or extremely rare, till then an ordinary table served the purpose. The earliest print of an apothecary's counter I am acquainted with, is of the year 1696, although in the Histoire des apothicaires &c there is what is described as a 'Vue interieure d'un hopital au 14me siecle.' wherein the apothecary is represented behind a counter, yet with all respect to M Creteur I will venture to express the opinion that the costumes of the apothecary and another individual who seems to be a physician, in reality belong to a period two or three centuries later.

The latter half of the 17th century witnessed a great development in the apothecaries' trade and after increased trade came improvements in the fitting up of

their shops. The plain upright "green earthen pots" which appear to have been the only kind in use during the preceding two centuries, were then supplemented by others of a more ornamental pattern, very similar to those now in use. The shield shape labels too had in many shops, given place to the scroll pattern, of which our present ones are curtailed descendents. It is about this period that I find nests of drawers first mentioned, though it is probable these conveniences were to be found only in shops of the better class.

With regard to the Show Carboys I have not come across any satisfactory data as to the time they came into general use among apothecaries, but there can be little doubt that we are indebted to the alchemists for these as well as the signs formerly gilded upon them, (I say 'formerly' yet the practice has not quite died out even now.). A conspicuous object in the shop was the indispensable mortar which stood upon a block or pedestal of wood, in front, or at the end of the table.

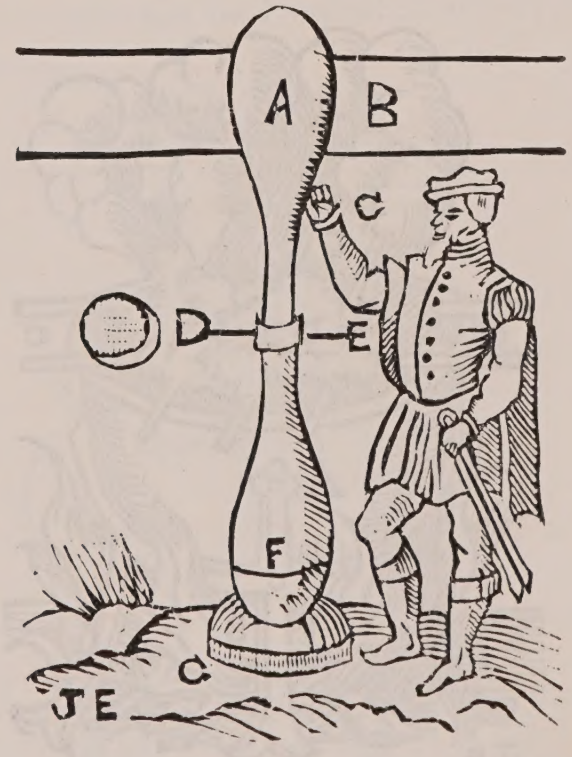
Scales suspended from a brass pillar mounted on a drawer seem to have been unknown till a comparatively late period. the prints I have seen representing them suspended either from the ceiling or from a bracket fixed in the wall. There being no Dispensing screen the customers must have often had opportunity for judging the aptness of the dispenser, the cautious manner of weighing the potent mummy or more costly bezoar.

MISCELLANEOUS.

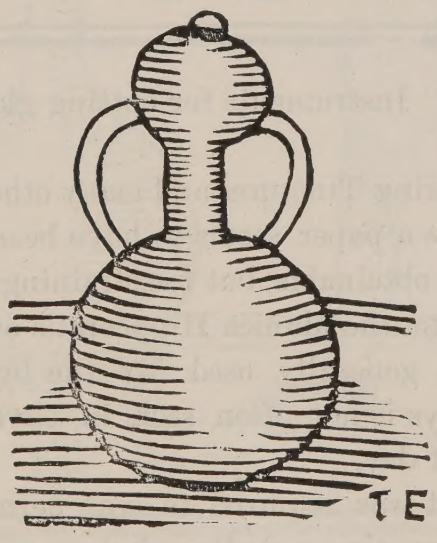
The common method of carrying out the process of digestion, was to bury the vessel containing the drug in a heap of horse dung, or a mixture of horse dung and quicklime, and sprinkling these occasionally with a little water. Another plan was to stand the vessel out in the sunshine with a mirror placed so as to reflect additional rays onto the contents, or balls of crystal (AA) were sometimes used instead of mirrors as shown in this sketch.

The earliest attempt at distilling, and (I believe) the only mode known to the ancients, was of the most simple character, requiring merely a pot, a few sticks and a piece or two of sponge or fleece. The sticks were placed across the top of the pot of boiling liquid, and on these was laid the wool or sponge, which as it became charged with condensed vapour was removed and wrung out. This plan was also used by sailors for obtaining fresh water at sea, and is described in the Treasure of Euonymus as 'a way of purging troubled waters.'

The process of distillation per descensum (terms first used by Galen in regard to the melting of metals) was sometimes utilized for obtaining essential oils, as is shown in the sketch below, representing the preparation of oil of juniper. A is the cucurbit in the uppermost part of which are packed the beaten berries [previously digested in horse dung for 28 days], F is the receiving cucurbit, and between the mouths of A and F is a perforated metal plate [D at side] supporting a column of sand reaching as high as C. Heat being applied at B causes the oil to trickle down through the sand and perforated plate into the receiver. G is a ring of straw supporting the apparatus.

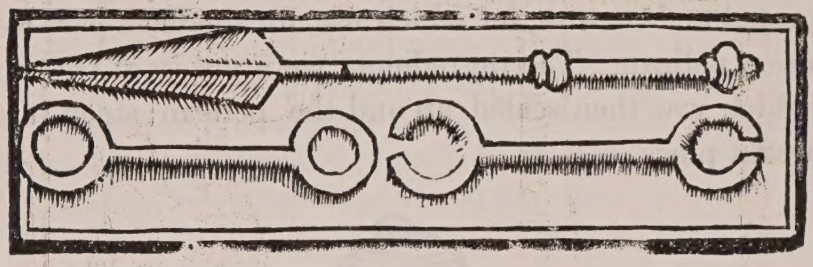


Circulation. A term often met with in old chymical books, and thus explained by Dr. J. French. Circulation, is when any liquor is so placed in digestion, that it shall rise up and fall down, rise up and fall down, and so do continually, and thereby become more digested and mature, for which use, for the most part we use a pelican. The ingredients were put in at the top which was then sealed up and the pelican stood in a warm place,



A Pelican, Hermes vessel or Circulatory.

The plan of cutting a glass flask by means of applying to its sides an iron ring heated to redness and then dashing cold water upon it, appears to have been the only method practised by chymists in olden time.



Instruments for cutting glass.

For filtering Tinctures and many other preparations coarse brown paper seems to have been the best material then obtainable, but for straining Infusions, Decoctions, &c. the Manica Hippocratis or Hippocrates's sleeve was generally used. By the bye, this relic of ancient days is not often seen in chymists' shops of the present day.

When it was required to seal hermetically a bolt head of large size, a shallow iron pan with a hole in the centre just big enough for the neck of the bolt head to pass through, was filled with burning coals and placed upon a bracket. The neck of the flask being softened sufficiently, the operator would give it a twist with pair of tongs.

The way to seal up a bolt head.

The discovery of several new mineral springs in the early part of the seventeenth century afforded the public opportunities for trying more wholesome means for restoring health than those used by the Faculty, and it would seem from the following lines by a medical writer of the period that they were not slow in testing the powers of the new remedies.

Of another rare well,

Another precious water, men found out,
Two miles from Stratford-bow, (or thereabout.)
I came to London hoping to doe cures,
But this well from me, all my worke allures:
'Twas said, the vertue of the well was this,
To helpe all maladies, nought came amisse.
The Citizen in throngs, drinkes, washes, swills,
The well was watch'd with staves and rustic bills,
That I, and some Practicioners were scar'd,
When of this moyst Physician first we heard,
And Surgeons and good Oculists there were,
That of this well, were in a little feare.
And if it had held long, those soueraigne drops
Had made the Apothecaries shut up shops.
The women that in Cheape-side hearbs doe sell,
Were pittifully hindred by this well:
Wormewood, that's good for many a strange disease,
Was good for nothing then, but murther fleaes,

The Merchants that strange drugs did hither bring,
As Seeney, Sarsaperilla, and many a thing,
Were doubtfull that their trades would quickly fall,
If this Well should doe any good at all;
And all the Druggists, that by whole sale sold,
Were like to seeke new trades, and leave their old:
For all the Hearbes Rootes Plants and Stones, and trees,
Gums, fruits and mineralls, beasts, fowles wormes bees,
And all the helps for man, which God created,
This well then (in a manner) halfe defeated.
But is't not ignorance to thinke, or follie,
That choller, sanguine, flegme, and melancholy,
Hot, cold, moist, dry, of strange, and various natures,
And how that all diseases, sundry matters,
And that the poore cold water of a Well,
Should all mens griefes expell, all Art excell!
But in the Text, it is th' Almighties will,
That we should honour the Phisician still:
And going to these Wells with care and cost,
Makes purblind, starke blind, and the labour lost:
For all the fame of them is but a blast,
Or like a Nine dayes wonder's quickly past.

—o—